

REMARKS

Claims 1-35 are in the present application. Claims 19-27 and 35 are currently pending in the application. Claims 1-18 and 28-34 are withdrawn. Claims 19-27 have now been amended. Applicants respectfully submit that all amendments to the claims are supported by the original disclosure and do not introduce new matter.

Claim Rejections - 35 USC § 102

The Examiner has rejected claims 19, 20, 22, 24, 25 and 35 under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (US 6,242,430 B1).

The Examiner contends that Suzuki et al (US 6,242,430 B1) teaches a method comprising concurrently administering a host-rotaxane and an agent (a fluorophore), wherein the host-rotaxane is a methylene chain, i.e. the host-rotaxane is not a polymer, in a pharmaceutically acceptable carrier, water, a liquid filler or diluent (Figures 2 and 3, column 1, lines 47-65 and column 10, lines 33-40).

The claims have now been amended to provide for: “A method of delivering an agent to a subject, comprising administering to the subject a composition comprising a host-rotaxane and a guest molecule, wherein the guest molecule comprises an active agent; wherein the host-rotaxane is not a polymer and comprises (a) at least one linear component having a first and second terminal end; (b) at least one cyclic component; and (c) at least one blocking group; wherein the at least one linear component is disposed in the cyclic component and the at least one blocking group is present at the first, second or both terminal ends of the linear component; and wherein at least one of the blocking groups on the first or second terminal end of the linear molecule of the host-rotaxane comprises a guest binding element for associating with the guest molecule to form a host-guest complex.”

The Suzuki et al. reference does not disclose or suggest materials and methods as provided for in the amended claims.

Claim Rejections - 35 USC § 103

The Examiner has rejected claim 21 under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 6,242,430 B1) in view of Nobuhiko (US 5,855,900).

The Examiner contends that Suzuki et al (US 6,242,430 B1) teaches a method comprising concurrently administering a host-rotaxane and an agent (a fluorophore), wherein the host-rotaxane is a methylene chain, i.e. the host-rotaxane is not a polymer, in a pharmaceutically acceptable carrier, water (Figures 2 and 3, column 1, lines 47-65 and column 10, lines 33-40). Suzuki teaches that the agent is bound to a cyclodextrin guest molecule, which is associated with the host-rotaxane (Figures 2 and 3, column 1, lines 54-65).

The Examiner contends that Nobuhiko teaches that cyclodextrin guest molecules, associate with host rotaxanes, can be conjugated to a drug, providing controlled release of said drug (abstract, Figure 2). Therefore it would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to modify the cyclodextrin of Suzuki et al with a desired drug to provide controlled release of said drug, since these host-rotaxane/guest molecule complexes were known to be useful in such application, thus resulting in the practice of the instantly claimed invention with a reasonable expectation of success.

The Examiner has rejected claims 23, 26 and 27 under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 6,242,430 B1) and Nobuhiko (US 5,855,900) as applied to claim 21 above, further in view of Goodman and Gilman's, The Pharmacological Basis of Therapeutics.

The Examiner contends that Suzuki et al and Nobuhiko teach the aforementioned host-rotaxane/guest molecule drug delivery complex, but fail to explicitly teach the routes of administration of claim 23, or the subsequent administration of an additional agent with bound or unbound to a guest molecule.

The Examiner contends that Goodman's and Gilman's teaches that it is common practice in the pharmaceutical art to select an appropriate route of administration (parenteral, oral, etc.) and carrier system (solid, aqueous solution, oily solution, etc.) to optimize bioavailability for a particular drug (Goodman and Gilman's, p. 5, right column through p. 6 left column, Table 1 -1).

The claims have now been amended as provided above.

The Suzuki et al., Nobuhiko and Goodman and Gilman's, references do not disclose or suggest materials and methods – either alone or in combination -- as provided for in the amended claims. As such, the rejections of the current office action are rendered moot.

CONCLUSION

Applicants' undersigned attorney has made a good faith effort to be responsive to the restriction requirement made in the Office Action dated December 9, 2008. If the Examiner would like to discuss the restriction requirement or to have Applicants provide any clarification of its terms, he is invited to contact Applicants' undersigned attorney at the phone number given below.

The Commissioner for Patents is hereby authorized to charge any deficiency or credit any overpayment of fees to Frost Brown Todd LLC Deposit Account No. 06-2226.

Respectfully submitted,

DAVID SMITHRUD

By



Stephen R. Albainy-Jenei
Registration No. 41,487
Attorney for Applicant(s)
FROST BROWN TODD LLC
2200 PNC Center
201 East Fifth Street
Cincinnati, Ohio 45202
(513) 651-6839
salbainyjenei@fbtlaw.com